

Introducing POLI

Escola Politécnica da

Universidade de São Paulo



Prof.Dr. Silvio Ikuyo Nabeta
Vice-Director





A bit of our history...

Escola Politécnica de São Paulo (Polytechnic School of São Paulo) was founded in 1893 by Antonio Francisco de Paula Souza, who from 1861 to 1863 studied engineering at Eidgenössische Technische Hochschule Zürich, and moved to Karlsruher Polytechnikum in 1864, where he got the degree of civil engineer in 1867.



Antonio Francisco de Paula Souza



1894: Marquês de Três Rios manor house, adapted as Escola Politécnica's first building



**1899: building specially constructed to house Escola Politécnica,
today named “Building Paula Souza”**



Edifício Paula Souza



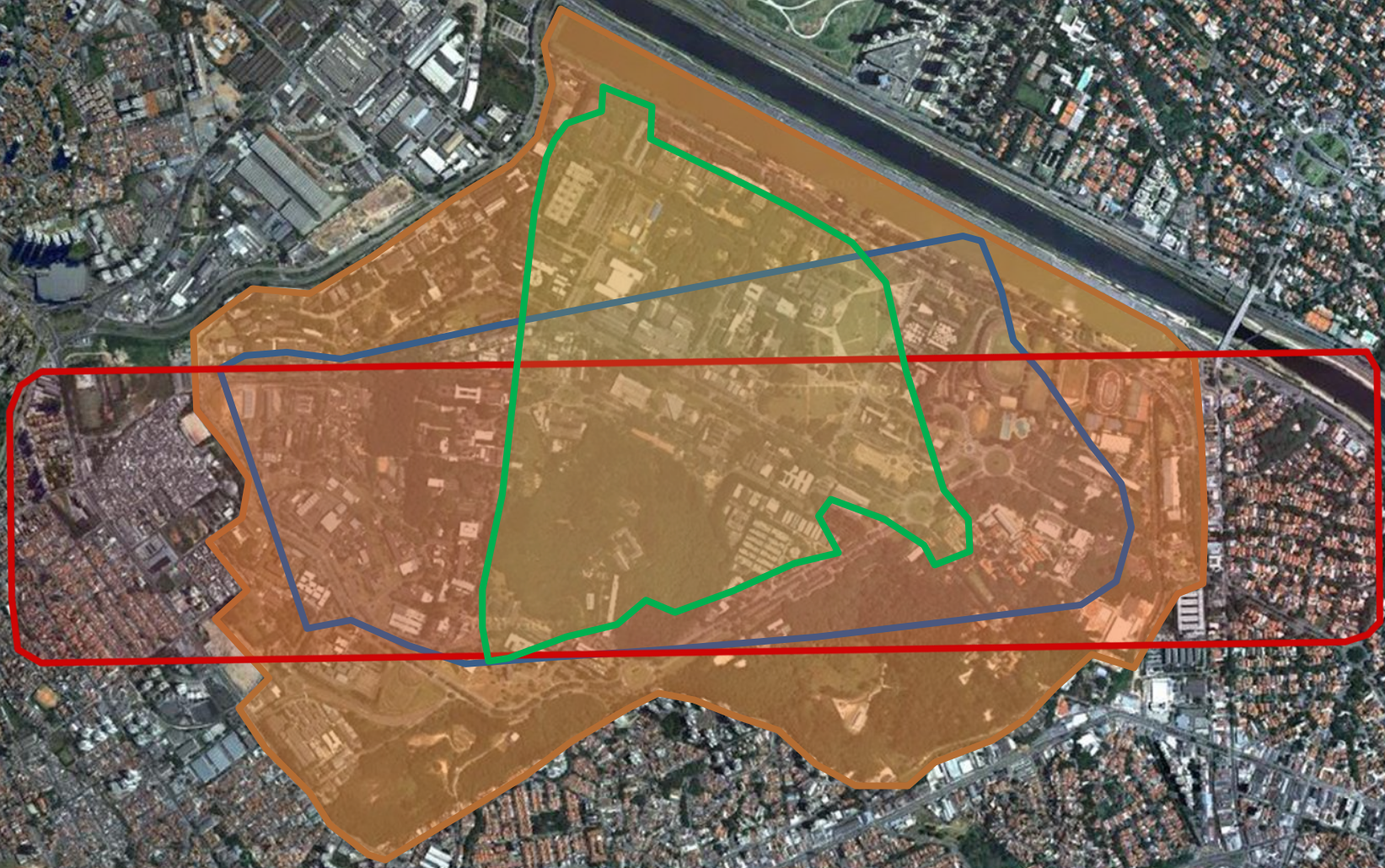
**In 1934 POLI became part of the
USP - UNIVERSIDADE DE SÃO PAULO**

**1960
USP – Capital Campus
Cidade Universitária Armando de
Salles Oliveira**

USP - Capital Campus

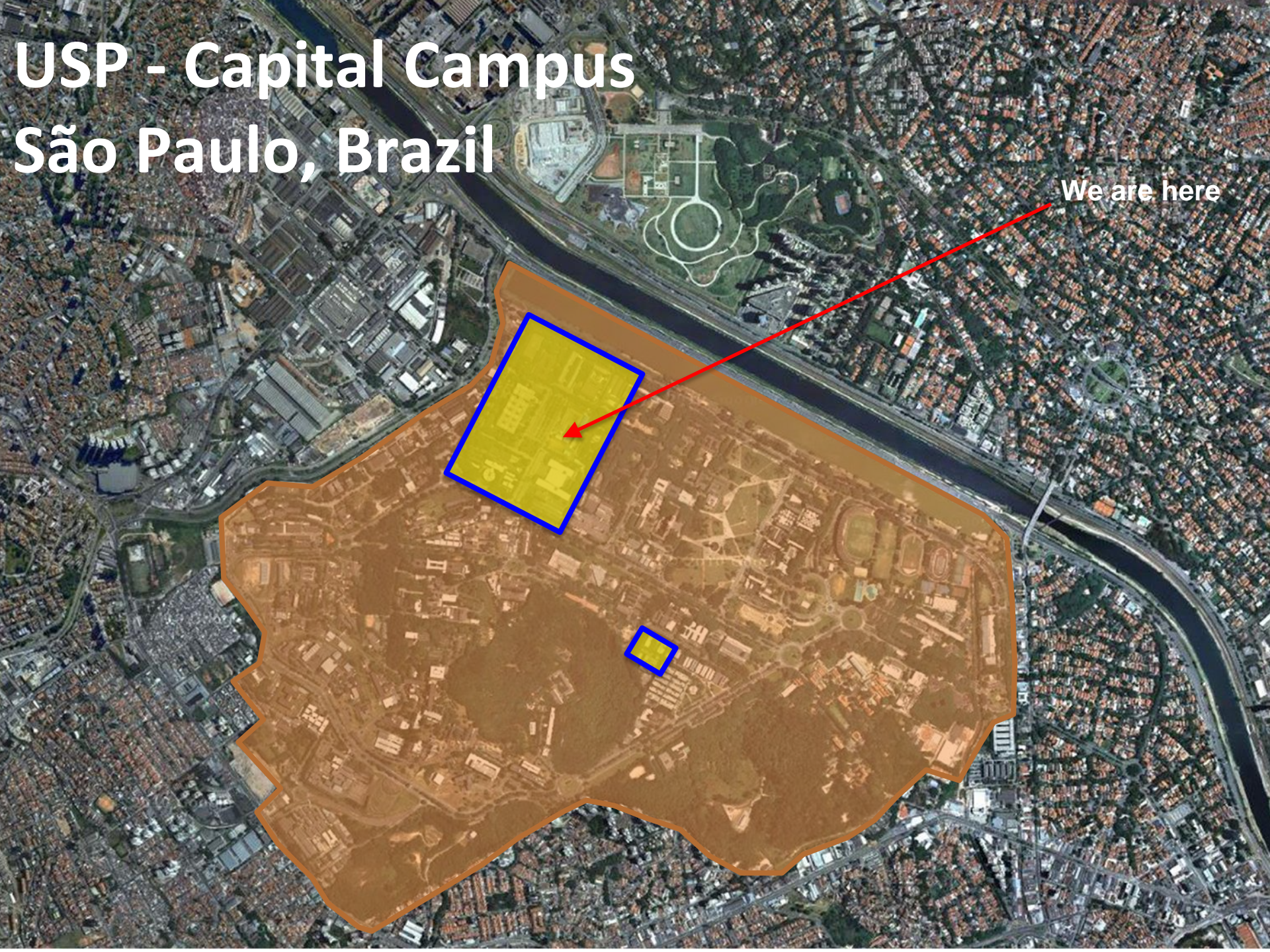
São Paulo, Brazil

- USP
- Central Park
- Hyde Park
- Ibirapuera Park



USP - Capital Campus São Paulo, Brazil

We are here



POLI U3P



**Escola Politécnica
Santos campus
Petroleum engineering**





POLI today

POLI today

POLI

- 15 teaching and research departments
- 152.525 m² premises
- 26 buildings
- 168 research laboratories / groups

Human Resources

- About 415 faculty members (97% with PhD)
- About 390 non-teaching staff

Teaching and research departments

Civil

Civil Construction Engineering - PCC
Structural and Geotechnical Engineering - PEF
Hydraulic and Environmental Engineering - PHA
Transportation Engineering - PTR

Electrical

Electrical Energy and Automation Engineering - PEA
Computer and Digital Systems Engineering - PCS
Electronic Systems Engineering - PSI
Telecommunications and Control Engineering - PTC

Mechanical

Mechatronics and Mechanical Systems Engineering - PMR
Mechanical Engineering - PME
Naval and Ocean Engineering - PNV
Industrial Engineering - PRO

Chemical

Chemical Engineering - PQI
Mining and Petroleum Engineering - PMI
Metallurgical and Materials Engineering - PMT

Students: approx. 12.500 in total

Undergraduate

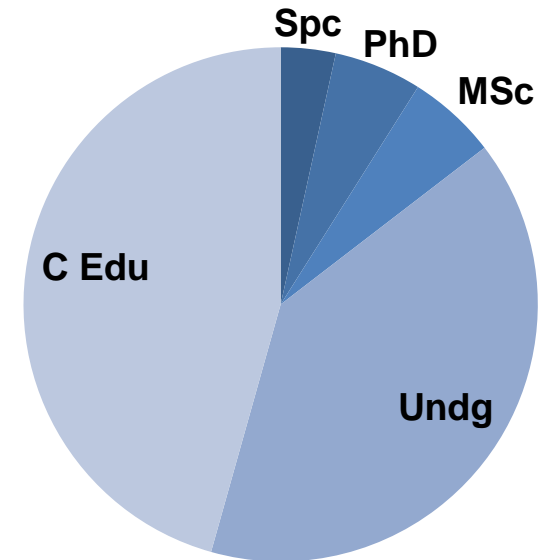
- 17 courses
- 4.750 students
- 870 newcomer students/year

Graduate

- 10 MSc programs
- 9 PhD programs
- 950 master students
- 630 doctor students
- 1700 “special students” (not yet applying for a degree)

Continuing Education

- 169 courses, with over 5.100 students
- 18 specialization and MBA-like courses





International Mobility of Undergraduate Students

International Mobility of Students

Undergraduation

- Various Exchange Programs for students
- Including Double Degree Programs for undergraduates

Postgraduation

- Several co-tutela agreements
- Dual PhD Programs

International Agreements in France



International Agreements in Italy



**POLITECNICO
DI TORINO**

Università di Roma



**POLITECNICO
DI MILANO**



**UNIVERSITÀ
POLITECNICA
DELLE MARCHE**



**UNIVERSITÀ
DEGLI STUDI
DI PADOVA**



**UNIVERSITÀ DEGLI STUDI
DI TRENTO**



**UNIVERSITÀ
DEGLI STUDI
DI PALERMO**



**SAPIENZA
UNIVERSITÀ DI ROMA**

International Agreements in Germany and Belgium



International Agreements in Spain, Portugal, Netherlands, Hungary, Scotland...



UNIVERSITY OF TWENTE.



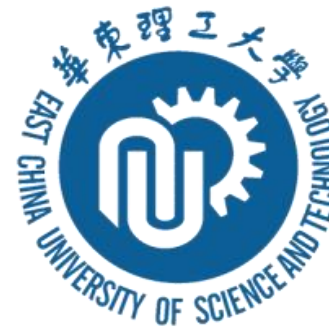
Waterford Institute of Technology



International Agreements in Australia & Asia



SHIBAURA INSTITUTE OF TECHNOLOGY
Established 1927



International Agreements in Canada, USA, Latin America



Participation in Academic Networks



**Top Industrial Managers
for Europe**



Magalhães

Smile framework

(Student Mobility in Latin America,
Caribbean and Europe)



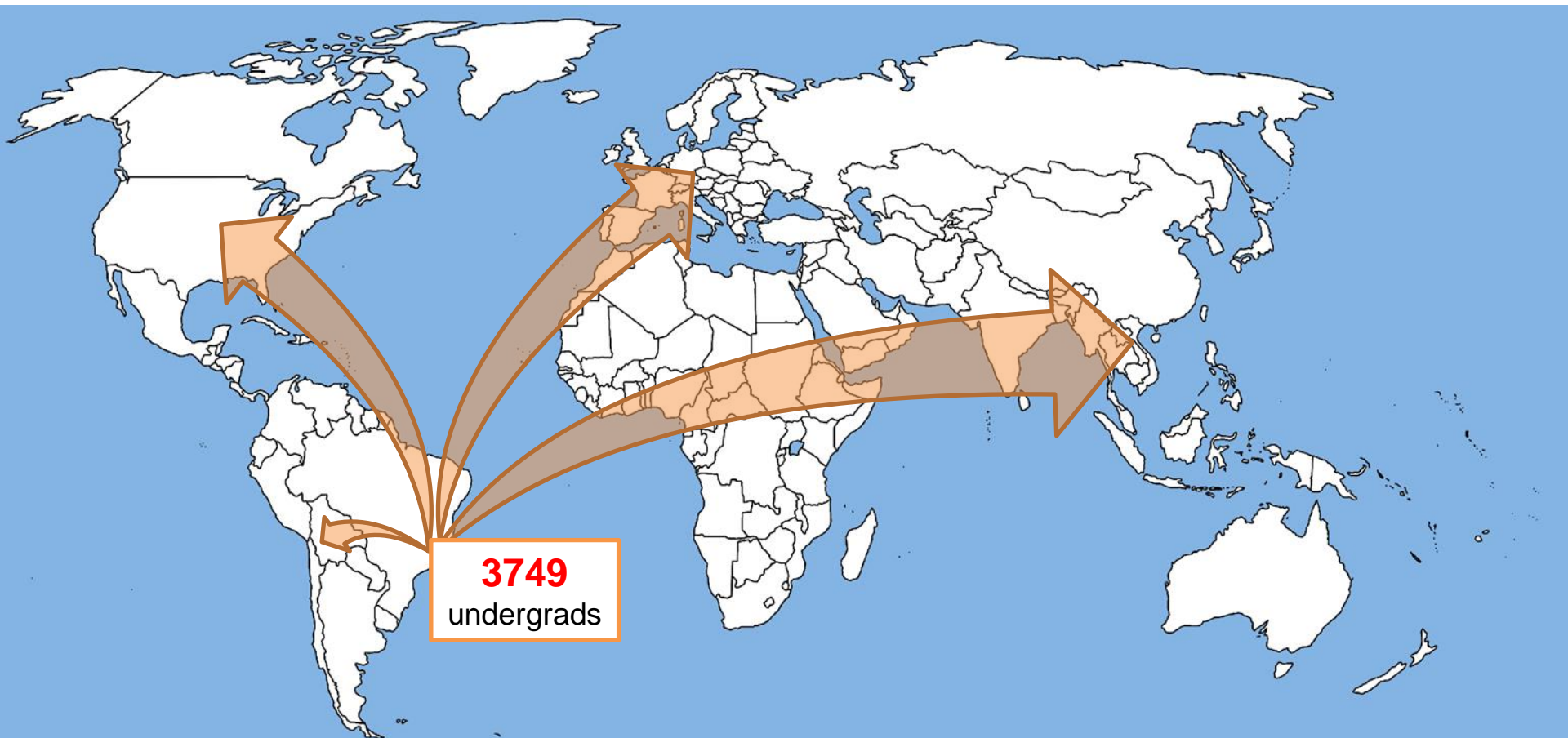
CLUSTER

LEADING UNIVERSITIES OF
SCIENCE AND TECHNOLOGY

International Mobility of Students recent years: 2001-2022

Double Degree programs: **1621** students to **6** countries

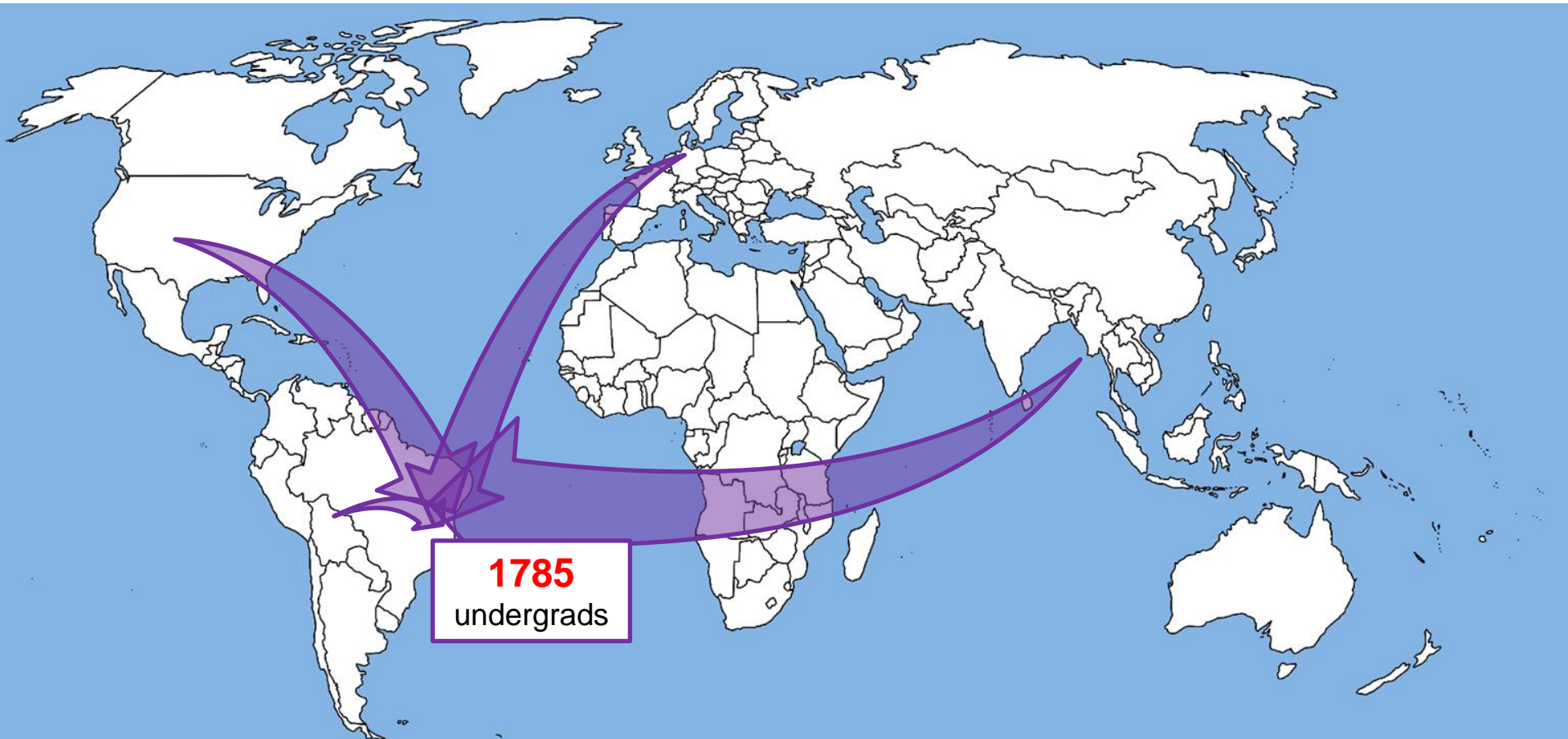
Exchange programs: **2128** students to **29** countries



International Mobility of Students recent years: 2001-2022

Exchange programs: **1535** students from **29** countries

Double Degree programs: **250** students from **6** countries





Research

Research

Research at POLI plays a major role in the development of the Brazilian industry and technology

- **About 168 research groups in action**
- **Research groups are formed by faculty members, researchers, graduate and undergraduate students**

14 Multi-Users' Labs

- **LAREX – Laboratory of Recycling, Waste Treatment and Extraction**
- **LCT – Laboratory of Technological Characterization**
- **TPN – Numerical Offshore Tank**
- **GPSJ – Research Group on Welding and Joining**
- **ENERQ – Center for Studies in Regulation and Energy Quality**
- **LMO – Laboratory of Offshore Mechanics**
- **RCGI – Research for Greenhouse Gas Innovation**
- **Center mmW - Millimeter Waves Center**
- **GAME – Center of Applied Geophysics for Mechatronics and Engineering**
- **InTRA – Integrated Technology for Rock and Fluid Analysis**
- **LME – Laboratory of Microstructure and Eco-efficiency of Materials**
- **DMC - Laboratory of Durability of Materials and Components**
- **LABMICRO – Laboratory of Electron Microscopy**

Multi-Users Labs

Technological Characterization Lab



Numerical Offshore Tank



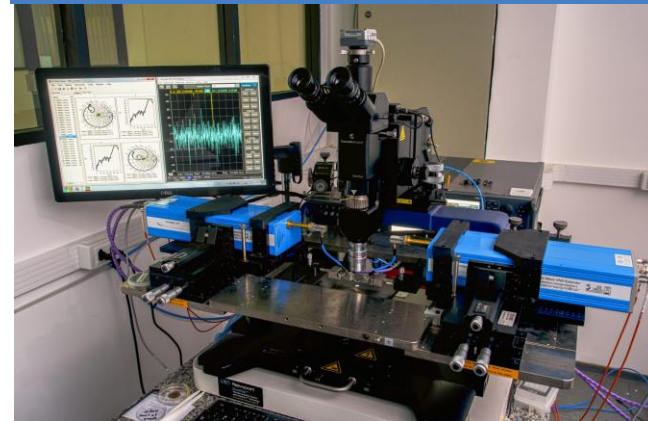
Center for Studies in Regulation and Energy Quality



Research Centre for Greenhouse Gas Innovation



Millimeter Wave Center



Multi-Users Labs

Laboratory of Recycling, Waste Treatment and Extraction



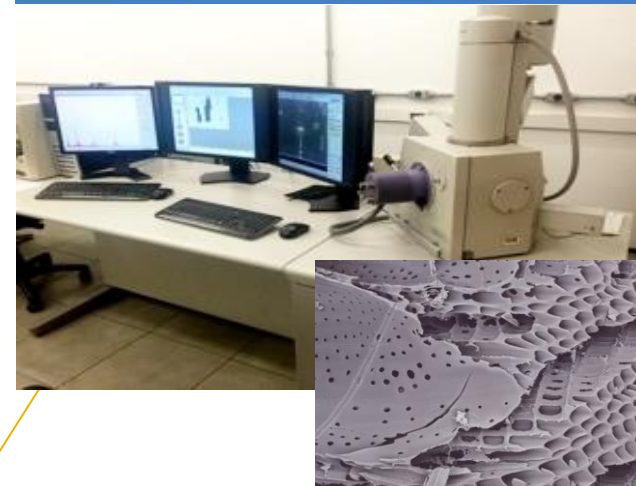
GAME-Center for Applied Geophysics



Integrated Technology for Rock and Fluid Analysis

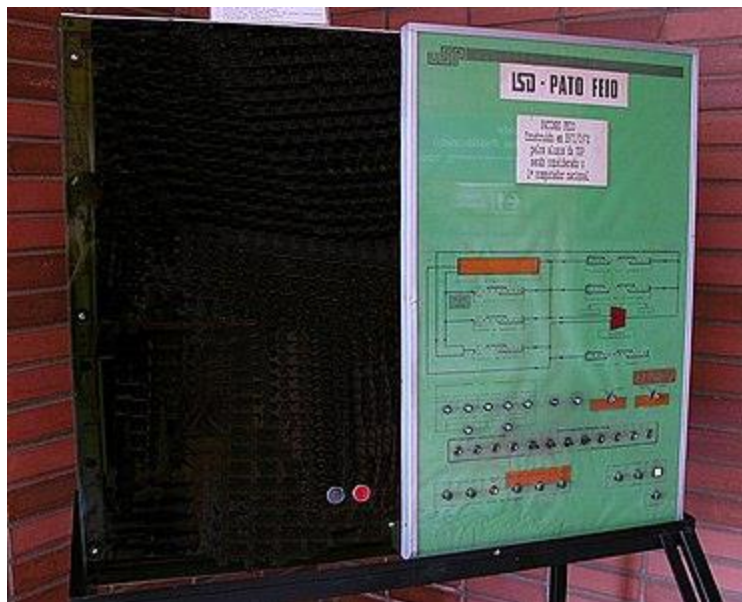


Laboratory of Electron Microscopy



Important Achievements

Research at POLI plays a major role in the development of the Brazilian industry and technology



**Patinho Feio (Ugly Duckling):
First brazilian computer (1972)**



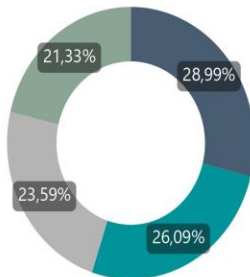
**INSPIRE:
Low-Cost Pulmonar Ventilator (2020)
More than 1,000 assembled and distributed
all over Brazil**

Contracts and Partnerships



133
Current R&D
Projects

\$437.66 Mi





Thank you